

WHAT IS CLAIMED IS:

- 1 A method of inhibiting the growth of hematopoietic cells comprising:
- contacting a plurality of hematopoietic cells with a growth inhibiting
amount of a capsid agent selected from the group consisting of a recombinant B19
5 parvovirus capsid, a recombinant B19 parvovirus VP2 capsid, and a fragment of a
recombinant B19 parvovirus VP2 capsid, wherein said fragment is at least three amino
acids in length; and
- measuring the inhibition of growth of said hematopoietic cells.
2. The method of Claim 1, wherein a growth inhibiting amount of the recombinant
10 B19 parvovirus capsid is contacted with said plurality of hematopoietic cells.
3. The method of Claim 1, wherein a growth inhibiting amount of the recombinant
B19 parvovirus VP2 capsid is contacted with said plurality of hematopoietic cells.
4. The method of Claim 1, wherein a growth inhibiting amount of the fragment of a
15 recombinant B19 parvovirus VP2 capsid is contacted with said plurality of
hematopoietic cells.
5. The method of Claim 4, wherein said fragment consists of the sequence
glutamine-glutamine-tyrosine.
6. The method of Claim 4, wherein said fragment consists of the sequence of **SEQ.**
ID. No. 5.
- 20 7. The method of Claim 1, wherein said measuring step comprises observing a
reduction in the presence of a hematopoietic cell.
8. The method of Claim 1, wherein said measuring step involves observing a
reduction in red blood cell hematocrit.
- 9 A method of inhibiting the proliferation of endothelial cells comprising:
- 25 contacting a plurality of endothelial cells with a proliferation inhibiting
amount of a capsid agent selected from the group consisting of a recombinant B19
parvovirus capsid and a recombinant B19 parvovirus VP2 capsid; and
- measuring the inhibition of proliferation of said endothelial cells.
10. The method of Claim 9, wherein a proliferation inhibiting amount of the
30 recombinant B19 parvovirus capsid is contacted with said plurality of endothelial cells.

11. The method of Claim 9, wherein a proliferation inhibiting amount of the recombinant B19 parvovirus VP2 capsid is contacted with said plurality of endothelial cells.
12. The method of Claim 9, wherein said measuring step comprises observing a reduction in the presence of an endothelial cell.
- 13 A method of inhibiting the migration of endothelial cells comprising:
- contacting a plurality of endothelial cells with a migration inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid, a recombinant B19 parvovirus VP1 capsid, and a recombinant B19 parvovirus VP2 capsid; and
- measuring the inhibition of migration of said endothelial cells.
14. The method of Claim 13, wherein a migration inhibiting amount of the recombinant B19 parvovirus capsid is contacted with said plurality of endothelial cells.
15. The method of Claim 13, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP1 capsid is contacted with said plurality of endothelial cells.
16. The method of Claim 13, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP2 capsid is contacted with said plurality of endothelial cells.
17. The method of Claim 13, wherein said measuring step involves observing a reduction in metastasis or angiogenesis.
- 18 A method of inhibiting the growth of hematopoietic cells comprising:
- identifying a subject in need of an inhibition of growth of hematopoietic cells; and
- providing to said subject a growth inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid, a recombinant B19 parvovirus VP2 capsid, and a fragment of a recombinant B19 parvovirus VP2 capsid, wherein said fragment is at least three amino acids in length.
19. The method of Claim 18, wherein a growth inhibiting amount of the recombinant B19 parvovirus capsid is provided to said subject.

20. The method of Claim 18, wherein a growth inhibiting amount of the recombinant B19 parvovirus VP2 capsid is provided to said subject.
21. The method of Claim 18, wherein a growth inhibiting amount of the fragment of a recombinant B19 parvovirus VP2 capsid is provided to said subject.
- 5 22. The method of Claim 18, wherein said fragment consists of the sequence glutamine-glutamine-tyrosine.
23. The method of Claim 18, wherein said fragment consists of the sequence of **SEQ. ID. No. 5**.
24. The method of Claim 18, wherein said subject has a hematological proliferative disorder.
- 10 25. The method of Claim 24, wherein said hematological proliferative disorder is Polycythemia Vera.
- 26 A method of inhibiting the proliferation of endothelial cells comprising:
- 15 identifying a subject in need of an inhibition of proliferation of endothelial cells; and
providing to said subject a proliferation inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid and a recombinant B19 parvovirus VP2 capsid.
27. The method of Claim 26, wherein a proliferation inhibiting amount of the recombinant B19 parvovirus capsid is provided to said subject.
- 20 28. The method of Claim 26, wherein a proliferation inhibiting amount of the recombinant B19 parvovirus VP2 capsid is provided to said subject.
- 29 A method of inhibiting the migration of endothelial cells comprising:
- 25 identifying a subject in need of an inhibition of migration of endothelial cells; and
providing to said subject a migration inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid, a recombinant B19 parvovirus VP1 capsid, and a recombinant B19 parvovirus VP2 capsid.
- 30 30. The method of Claim 29, wherein a migration inhibiting amount of the recombinant B19 parvovirus capsid is provided to said subject.

31. The method of Claim 29, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP1 capsid is provided to said subject.

32. The method of Claim 29, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP2 capsid is provided to said subject.

5 33. An isolated or purified fragment of parvovirus B19 VP2 capsid consisting of a sequence selected from the group consisting of glutamine-glutamine-tyrosine, SEQ. ID. NO: 5, SEQ. ID. NO: 6, SEQ. ID. NO: 7, SEQ. ID. NO: 8, SEQ. ID. NO: 44, SEQ. ID. NO: 45, SEQ. ID. NO: 46, SEQ. ID. NO: 47, SEQ. ID. NO: 48, SEQ. ID. NO: 49, and SEQ. ID. NO: 50.

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